May 2010

Type SR8 Sanitary Backpressure Regulator

- ✧ **Sanitary Design Standards**
- ✧ **Superior Flow Performance and Accuracy**
- ✧ **Wide Control Range**
- ✧ **Diaphragm Cycle Life**
- ✧ **Highly Stable**
- ✧ **Large Turndown Ratio**
- ✧ **Tight Shutoff**
- ✧ **Easy Maintenance**
- ✧ **Covered Adjusting Screw**
- ✧ **Self-Draining**

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Figure 1. *Type SR8 Sanitary Backpressure Regulator*

- ✧ **Optional T-Handle Available**
- ✧ **Remote Setpoint Capability**
- ✧ **Nonporous Polished Body and Internals**
- ✧ **Optional Diaphragm Support**

D103106X012

FISHER®

EMERSON™
Process Management

Features

- **Nonporous Polished Body and Internals for High Purity Processing—**Body, plug, and diaphragm plate (when applicable) are machined from 316L Stainless steel. All internal wetted surfaces are mechanically polished and electropolished to 20 µin (0,5 µm) Ra.
- **Wide Control Range—**Typical setpoints range from 2 to 125 psig (0,14 to 8,6 bar) to cover a wide range of applications.
- **Self-Draining—**Fluids will drain toward the outlet of the body when the regulator is installed with the spring case in the upright vertical position.
- **Tight Shutoff—**Soft seat is available to ensure better shutoff.
- **Superior Flow Performance and Accuracy—**The Type SR8 is designed to deliver high flows with minimal buildup to maintain an even pressure over the full range of flow.
- **Sanitary Design Standards—**Designed to meet 3A®, ASME BPE, and European Hygienic Equipment Design Group criteria.
- **Highly Stable—**The upper guide ring provides for stable control over entire operating range.
- **Easy Maintenance—**The design incorporates a metal-to-metal stop to protect diaphragms from damage due to over compression at outer circumference. Tri-Clamp® allows easy access to internal parts.
- **Large Turndown Ratio—**No need for reduced C_v trims at low flows.
- **Optional Diaphragm Support—**A diaphragm support is added to the regulator for installations that will be exposed to vacuum conditions.
- **Covered Adjusting Screw—**Electropolished stainless steel adjusting screw cover improves the aesthetics and cleanability of the regulator.
- **Diaphragm Cycle Life—**Metal 316L Stainless steel diaphragm is designed to maximize service life.
- **Optional T-Handle Available—**T-Handle option available to accommodate frequent adjustments.
- **Remote Setpoint Capability—**An optional spring case configuration permits pressure loading. Loading pressure varied from a remote location adjusts the setpoint in direct proportion.

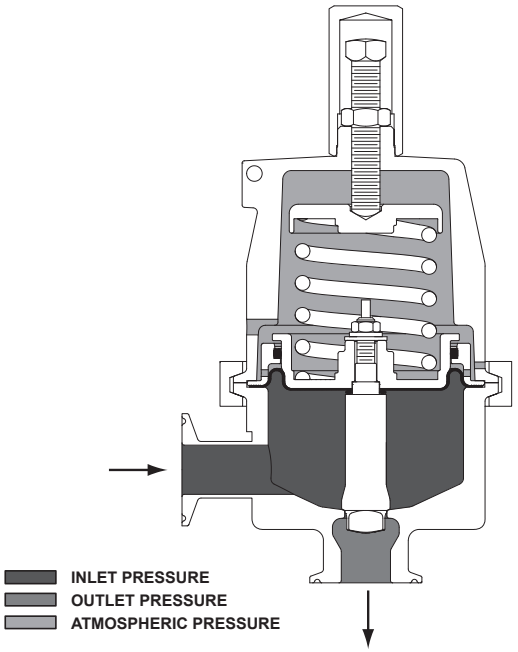

Figure 2. *Type SR8 Operational Schematic*

Introduction

The Type SR8 backpressure regulator is a compact, large capacity, direct-operated backpressure regulator. It is designed for use in applications where a sanitary design is essential, such as pharmaceutical, biotechnology, or food and beverage industries. The unit is available in NPS 1/2 through 3 (DN 15 through 80) sizes with end connections that will match up to Tri-Clamp® sanitary fittings. The Type SR8 is suitable for use in steam, liquid, or gas service.

Principle of Operation

The Type SR8 is a direct-operated regulator. Pressure in the controlled system (regulator inlet pressure) registers beneath the diaphragm of the regulator and opposes the force provided by the predetermined spring compression. When regulator spring force exceeds diaphragm force exerted by the inlet pressure, the spring will keep the valve plug closed to prevent flow to the downstream system. As inlet pressure increases above setpoint, this increase registers on the diaphragm and the valve plug opens to allow flow to the downstream system.

Tri-Clamp® is a mark owned by Tri-Clover, Incorporated.
3-A® is a mark owned by 3-A Sanitary Standards, Incorporated.

Specifications

Body Size, Inlet and Outlet Connection
NPS 1/2, 3/4, 1, 1-1/2, 2 and 3 (DN 15, 20, 25, 40, 50 and 80)

Service Media
All Sizes: Steam, Gas, and Liquid

End Connection
Tri-Clamp® Sanitary connections(5)

Body Pressure/Temperature Ratings(1)

MAXIMUM TEMPERATURE, °F (°C)	MAXIMUM INLET PRESSURE, PSIG (bar)	MAXIMUM OUTLET PRESSURE, PSIG (bar)
150 (65)	210 (14,5)	210 (14,5)
275 (135)	180 (12,4)	180 (12,4)
400 (204)	160 (11,0)	160 (11,0)

Maximum Operating Pressures(1)(3)

BODY SIZE, NPS (DN)	MAXIMUM TEMP, °F (°C)	MAX INLET PRESSURE, PSIG (bar)	MAX OUTLET PRESSURE, PSIG (bar)
1/2 through 1-1/2 (DN 15 through 40)	150 (65)	210 (14,5)	210 (14,5)
	275 (135)	180 (12,4)	180 (12,4)
	400 (204)	160 (11,0)	160 (11,0)
2 and 3 (DN 50 and 80)	150 (65)	150 (10,3)	150 (10,3)
	275 (135)	125 (8,6)	125 (8,6)
	400 (204)	110 (7,6)	110 (7,6)

Set Pressure Ranges
See Table 1

Maximum Differential Pressures(1)
See Table 1

Temperature Capabilities(1)
See Table 2

Flow Coefficients
See Table 4

Construction Materials
See Table 3

Pressure Registration
Internal

Pressure Loaded Spring Case Option
Maximum Loading Pressure
NPS 1/2 through 1-1/2 (DN 15 to 40) body:
125 psig (8,6 bar)
NPS 2 and 3 (DN 50 and 80) body:
60 psig (4,1 bar)
1/4 NPT Tapped Vent Connection

Vacuum Protection Option
Maximum Vacuum Pressure
14 psig (1,0 bar) (vacuum)

Certifications Available Upon Request
3A® certificate (Ethylenepropylene (EPDM) and 316L Stainless steel diaphragms only)
FDA approved elastomers/plastics
Material and Functional Test Certificates
USP Class VI approved elastomers/plastics(2)

Spring Case Construction
Drilled untapped vent holes (**standard**)
1/4 NPT for Pressure Load Connection (optional)

Pressure Setting Adjustment
Adjusting screw with Electropolished Cover (**standard**)
T-Handle adjusting screw (optional)

Shutoff Classification per ANSI/FCI 70-3-2003
Metal Seat: ANSI Class III
Polytetrafluoroethylene (PTFE) Soft Seat:
ANSI Class VI
Polyetheretherketone (PEEK) Soft Seat:
ANSI Class VI (150-400°F)(4)

Approximate Weight
NPS 1/2 and 3/4 (DN 15 and 20):
9 pounds (4 kg)
NPS 1 and 1-1/2 (DN 25 and 40):
18 pounds (8 kg)
NPS 2 and 3 (DN 50 and 80):
60 pounds (27 kg)

Options
Vacuum protection
Pressure Loaded spring case
T-handle adjusting screw

1. The pressure/temperature limits in this bulletin and any applicable standard or code limitation should not be exceeded.
2. Contact your Local Sales Office for details on available constructions.
3. Maximum pressure to prevent damage to internal parts and leakage to atmosphere.
4. Polyetheretherketone (PEEK) Seat meets ANSI Class IV or better below 150°F (66°C).
5. End connection clamps and gaskets to be supplied by the user.

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Table 1. *Set Pressure Ranges, Control Spring Data, and Maximum Differential Pressures*

BODY SIZE, NPS (DN)	SET PRESSURE RANGES, PSIG (bar)	MAXIMUM DIFFERENTIAL PRESSURE, PSID (bar d)	COLOR CODE	PART NUMBER	WIRE DIAMETER, INCH (mm)	FREE LENGTH, INCH (mm)
1/2 and 3/4 (15 and 20)	2 to 8 (0,14 to 0,55)(1)	15 (1,0)	Blue	GE06780X012	0.138 (3,51)	2.75 (69,9)
	5 to 25 (0,34 to 1,7)	40 (2,7)	Silver	GE06781X012	0.177 (4,50)	2.75 (69,9)
	10 to 50 (0,69 to 3,4)	100 (6,9)	Green	GE06782X012	0.192 (4,88)	2.75 (69,9)
	35 to 100 (2,4 to 6,9)	140 (9,6)	Red	GE06783X012	0.225 (5,72)	2.75 (69,9)
	75 to 125 (5,2 to 8,6)	160 (11,0)	Red/ Yellow	GE06783X012/ GE06784X012	0.225 (5,72)/ 0.148 (3,76)	2.75 (69,9)/ 2.75 (69,9)
1 and 1-1/2 (25 and 40) full port 1-1/2 x 1 (40 x 25)	2 to 8 (0,2 to 0,5) (1)	15 (1,0)	Blue	GE02763X012	0.225 (5,72)	3.25 (82,6)
	5 to 25 (0,4 to 1,7)	40 (2,7)	Silver	GE02764X012	0.282 (7,16)	3.25 (82,6)
	15 to 70 (1,0 to 4,8)	100 (6,9)	Green	GE02765X012	0.331 (8,41)	3.25 (82,6)
	25 to 90 (1,7 to 6,2)	125 (8,6)	Red	GE02766X012	0.362 (9,19)	3.25 (82,6)
	35 to 100 (2,4 to 6,9)	140 (9,6)	Green/ Yellow	GE02765X012/ GE06090X012	0.331 (8,41) 0.250 (6,35)	3.25 (82,6) 3.25 (82,6)
	75 to 125 (5,2 to 8,6)	160 (11,0)	Red/ Yellow	GE02766X012/ GE06090X012	0.362 (9,19)/ 0.250 (6,35)	3.25 (82,6)/ 3.25 (82,6)
2 and 3 (50 and 80)	10 to 25 (0,7 to 1,7)	50 (3,4)	Silver	GE14003X012	0.562 (14,3)	6.00 (152)
	15 to 50 (1,0 to 3,4)	75 (5,2)	Green	GE14004X012	0.625 (15,9)	6.00 (152)
	25 to 60 (1,7 to 4,1)	75 (5,2)	Red	GE14005X012	0.625 (15,9)	6.00 (152)
1. The 2 to 8 psig (0,14 to 0,55 bar) spring is not available with the metal diaphragm.						

Table 2. *Temperature Capabilities*

SEAT TYPE	DIAPHRAGM MATERIAL	O-RING MATERIAL	TEMPERATURE RANGE, °F (°C)
Metal (316L)	Ethylenepropylene (EPDM)	Ethylenepropylene (EPDM)	- 20 to 275 (-28 to 135)
	316L Stainless Steel	PTFE/Fluorocarbon (FKM)(1)	20 to 400 (-6 to 204)
	PTFE/Fluorocarbon (FKM)	PTFE/Fluorocarbon (FKM)	20 to 400 (-6 to 204)
Soft (PTFE/316L)	Ethylenepropylene (EPDM)	Ethylenepropylene (EPDM)	- 20 to 150 (-28 to 65)
	316L Stainless Steel	PTFE/Fluorocarbon (FKM)(1)	20 to 150 (-6 to 65)
	PTFE/Fluorocarbon (FKM)	PTFE/Fluorocarbon (FKM)	20 to 150 (-6 to 65)
Soft (Polyetheretherketone (PEEK)/316L)	Ethylenepropylene (EPDM)	Ethylenepropylene (EPDM)	-20 to 275 (-28 to 135)
	316L Stainless Steel	PTFE/Fluorocarbon (FKM)(1)	20 to 400 (-6 to 204)
	PTFE/Fluorocarbon (FKM)	PTFE/Fluorocarbon (FKM)	20 to 400 (-6 to 204)
1. O-ring material is PTFE for the NPS 1/2 and 3/4 (DN 15 and 20) sizes. Temperature range is the same.			

Table 3. *Construction Materials*

PART	MATERIAL
Body	316L Stainless steel, 20 µin (0,5 µm) Ra with Electropolish
Spring Case	316 Stainless steel with Electropolish
Plug and Diaphragm Plate	316L Stainless steel, 20 µin (0,5 µm) Ra with Electropolish
Soft Seat	Virgin PTFE or Polyetheretherketone (PEEK)
Diaphragm	Ethylenepropylene (EPDM)(FDA), Virgin PTFE coated Fluorocarbon (FKM), or 316L Stainless steel
Control Springs	Inconel® or 302 Stainless steel
Guide Ring and Upper and lower spring seats	300 Series Stainless steel
Adjusting Screw and locknut	300 Series Stainless steel
Closing Cap	300 Series Stainless steel with Electropolish or Plastic
T-handle and Locking Lever	300 Series Stainless steel
O-rings	Ethylenepropylene (EPDM) (FDA), Virgin PTFE encapsulated Fluorocarbon (FKM), or Virgin PTFE
Piston Ring	Expanded PTFE with 302 Stainless steel
Gaskets (Stainelss steel diaphragm only)	Virgin PTFE
Bolted Clamp	304 Stainless steel with Brass or Stainless steel Nuts
Bead Chain and Ring Grip	300 Series Stainless steel

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Table 4. *Flow Coefficients*

SIZE, NPS (DN)	WIDE OPEN COEFFECIENTS			C_1	K_m	F_L	X_T	F_d
	C_g	C_v	C_s					
1/2 (15)	27	1.4	1.3	19.1	0.54	0.73	0.23	0.40
3/4 (20)	70	3.1	3.5	22.8	0.61	0.78	0.33	0.41
1 (25)	202	7.2	10.1	28.1	0.63	0.79	0.50	0.42
1-1/2 x 1 (40 x 25)	216	7.6	10.8	28.4	0.60	0.77	0.51	0.42
1-1/2 (40) full port	309	10.9	15.5	28.4	0.68	0.82	0.51	0.40
2 (50)	962	34.4	48	28.0	0.60	0.78	0.49	0.32
3 (80)	1114	40.3	56	27.6	0.44	0.67	0.48	0.36

Capacity Data

The capacity information on the following pages is based on four buildup factors, 10, 20, 30, and 40 percent. Buildup is the increase above setpoint required to open and is usually stated in percentage of setpoint value. Flow at setpoint (set flow) is approximately 10% of maximum flow. Greater capacities are obtained with higher buildups over the relief pressure setting, as shown in the capacity tables. To evaluate the performance of a regulator, compare the stated capacities at equivalent operating pressures and buildup factors. Comparing the wide open C_v does not consider the overall accuracy.

Buildup is derived by applying the applicable percentage buildup to the setpoint. Buildup of 10 percent on a 20 psig (1,4 bar) setpoint would be 2 psig (0,14 bar) for a total pressure of 22 psig (1,5 bar). Capacity information assumes full drop. For instances where full drop is not applicable, it is easiest to use the Fisher® Sizing program and the C_v values listed in Table 5.

For the most accurate control, use the lowest range spring that can be adjusted to the desired setpoint (see Table 1 for part numbers of appropriate springs for each body size). If closer control is necessary, a regulator of larger capacity should be selected, so that the necessary flow can be obtained with a smaller offset factor.

It may be necessary to interpolate the capacity table data to determine capacity for settings not given. To maintain accuracy, it is important when interpolating to stay within a spring range if possible.

An alternative method for interpolating capacities is to use the C_v as shown in Table 5 in the Fisher Sizing Program. When using this method remember that P_1 pressure is the sum of the setpoint and applicable buildup. Do not use the wide open coefficients shown in Table 4 for interpolating capacities.

Contact your nearest local Sales Office if you should have any questions about selecting the proper regulator.

Regulating capacities in Table 6 are shown in SCFH (60°F and 14.7 psia) of air at 60°F and normal cubic meters per hour at 0°C and 1.01325 bar. For gases of other specific gravities, divide by the square root of the appropriate specific gravity.

Capacities in Table 7 are in pounds per hour and kilograms per hour of saturated steam.

All water capacities in Tables 8 are shown in gallons per minute and liters per minute. The K_m values listed in Table 4 can be used to predict choked flow on liquid service.

Installation

The Type SR8 regulator may be installed in any position, as long as flow will be in the same direction as that indicated by the body arrow. However, to ensure self-draining (from inlet to outlet) the regulator should be installed with the spring case in the upright vertical position. The regulator should be installed so that the spring case vent is protected from anything that might interfere with it.

Emerson Process Management Regulator Technologies, Inc. provides an instruction manual with every regulator shipped. Refer to this for complete installation, operation and maintenance instructions. Included is a complete listing of individual parts and recommended spare parts.

Table 5. C_V *Coefficients*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	C_V AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1/2 (DN 15)				NPS 1/2 (DN 15)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	0.45	0.55	0.65	0.75	Not Available			
	5 (0,34)	0.45	0.67	0.84	0.99				
	8 (0,55)	0.50	0.80	1.03	1.22				
5 to 25 (0,34 to 1,7)	5 (0,34)	0.35	0.49	0.62	0.80	0.32	0.36	0.40	0.47
	15 (1,0)	0.59	0.94	1.13	1.26	0.40	0.55	0.67	0.81
	25 (1,7)	0.71	1.15	1.36	1.40	0.44	0.64	0.78	0.96
10 to 50 (0,69 to 3,4)	10 (0,69)	0.40	0.65	0.87	1.10	0.35	0.42	0.50	0.57
	15 (1,0)	0.54	0.87	1.04	1.21	0.38	0.49	0.62	0.74
	30 (2,1)	0.76	1.22	1.30	1.37	0.43	0.59	0.82	0.98
	45 (3,1)	0.86	1.39	1.40	1.40	0.45	0.64	0.91	1.09
	50 (3,4)	0.89	1.40	1.40	1.40	0.45	0.66	0.93	1.12
35 to 100 (2,4 to 6,9)	35 (2,4)	0.60	0.95	1.24	1.40	0.42	0.60	0.75	0.94
	50 (3,4)	0.69	1.10	1.35	1.40	0.46	0.69	0.89	1.11
	75 (5,2)	0.77	1.23	1.40	1.40	0.50	0.77	1.02	1.27
	100 (6,9)	0.82	1.30	1.40	1.40	0.53	0.82	1.09	1.36
75 to 125 (5,2 to 8,6)	75 (5,2)	1.16	1.40	1.40	1.40	1.12	1.40	1.40	1.40
	100 (6,9)	1.13	1.40	1.40	1.40	1.10	1.40	1.40	1.40
	125 (8,6)	1.23	1.36	1.39		1.02	1.40	1.40	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 5. C_V *Coefficients (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	C_V AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 3/4 (DN 20)				NPS 3/4 (DN 20)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	0.58	0.67	0.90	1.07	Not Available			
	5 (0,34)	0.82	1.38	2.08	2.27				
	8 (0,55)	1.04	1.94	2.96	3.10				
5 to 25 (0,34 to 1,7)	5 (0,34)	0.60	0.87	1.16	1.44	0.51	0.56	0.64	0.75
	15 (1,0)	1.04	2.10	2.69	2.82	0.56	0.70	0.86	1.03
	25 (1,7)	1.26	2.67	3.10	3.10	0.59	0.76	0.95	1.15
10 to 50 (0,69 to 3,4)	10 (0,69)	0.62	0.92	1.28	1.70	0.47	0.55	0.62	0.73
	15 (1,0)	0.80	1.35	1.70	2.11	0.51	0.65	0.78	0.93
	30 (2,1)	1.09	2.02	2.34	2.72	0.59	0.80	1.02	1.23
	45 (3,1)	1.23	2.34	2.64	3.00	0.62	0.87	1.13	1.37
	50 (3,4)	1.26	2.41	2.70	3.06	0.63	0.88	1.16	1.40
35 to 100 (2,4 to 6,9)	35 (2,4)	0.91	1.83	2.71	3.10	0.56	0.73	0.89	1.06
	50 (3,4)	1.34	2.36	3.00	3.10	0.62	0.83	1.09	1.35
	75 (5,2)	1.72	2.83	3.10	3.10	0.67	0.93	1.27	1.59
	100 (6,9)	1.94	3.10	3.10	3.10	0.70	0.98	1.36	1.73
75 to 125 (5,2 to 8,6)	75 (5,2)	1.66	2.80	3.04	3.10	1.01	1.58	1.92	2.10
	100 (6,9)	1.96	3.10	3.10	3.10	1.01	1.33	1.85	2.21
	125 (8,6)	2.21	3.10	3.10		1.01	1.47	1.96	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 5. C_V *Coefficients (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	C_V AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1 (DN 25)				NPS 1 (DN 25)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	1.79	2.48	3.02	4.13	Not Available			
	5 (0,34)	1.82	3.14	4.37	5.75				
	8 (0,55)	2.18	3.70	5.29	6.57				
5 to 25 (0,34 to 1,7)	5 (0,34)	1.37	1.79	2.28	2.91	1.03	1.25	1.53	1.76
	15 (1,0)	1.70	3.03	4.49	5.46	1.11	1.52	2.12	2.74
	25 (1,7)	2.13	4.01	6.00	7.20	1.19	1.69	2.43	3.21
15 to 70 (1,0 to 4,8)	15 (1,0)	1.19	2.19	3.34	4.26	1.04	1.32	1.68	2.11
	30 (2,1)	2.06	4.07	5.20	5.99	1.60	2.35	3.25	4.12
	45 (3,1)	2.48	4.96	6.06	6.78	1.87	2.84	3.98	5.03
	50 (3,4)	2.58	5.16	6.25	6.96	1.93	2.95	4.14	5.23
	60 (4,1)	2.73	5.47	6.56	7.20	2.03	3.12	4.40	5.55
	70 (4,8)	2.84	5.71	6.79	7.20	2.10	3.25	4.59	5.79
25 to 90 (1,7 to 6,2)	35 (2,4)	1.08	1.70	2.44	3.31	1.01	1.39	1.90	2.47
	50 (3,4)	1.76	3.24	4.58	5.27	1.39	2.20	3.10	3.98
	75 (5,2)	2.38	4.61	6.48	7.00	1.73	2.93	4.16	5.32
	90 (6,2)	2.60	5.12	7.18	7.20	1.85	3.20	4.55	5.80
35 to 100 (2,4 to 6,9)	35 (2,4)	1.55	2.46	3.57	4.66	1.11	1.52	2.02	2.58
	50 (3,4)	1.98	3.45	5.02	5.87	1.41	2.19	3.05	3.86
	75 (5,2)	2.38	4.33	6.31	6.95	1.68	2.79	3.96	4.98
	100 (6,9)	2.60	4.82	7.02	7.20	1.83	3.12	4.46	5.60
75 to 125 (5,2 to 8,6)	75 (5,2)	5.21	7.07	7.20	7.20	3.45	4.94	5.81	5.66
	100 (6,9)	5.88	7.20	7.20	7.20	3.30	4.93	5.28	6.00
	125 (8,6)	5.84	7.20	7.20		3.51	5.17	5.79	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 5. C_V *Coefficients (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	C_V AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1-1/2 (DN 40) Reduced Port				NPS 1-1/2 (DN 40) Reduced Port			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	1.97	2.72	3.31	4.54	Not Available			
	5 (0,34)	2.00	3.44	4.78	6.29				
	8 (0,55)	2.38	4.05	5.78	7.16				
5 to 25 (0,34 to 1,7)	5 (0,34)	1.50	1.96	2.49	3.18	1.12	1.37	1.67	1.92
	15 (1,0)	1.85	3.30	4.89	5.95	1.21	1.65	2.31	2.99
	25 (1,7)	2.32	4.37	6.54	7.60	1.30	1.84	2.65	3.50
15 to 70 (1,0 to 4,8)	15 (1,0)	1.29	2.39	3.64	4.64	1.13	1.44	1.83	2.30
	30 (2,1)	2.24	4.43	5.66	6.52	1.74	2.56	3.54	4.48
	45 (3,1)	2.70	5.40	6.60	7.38	2.04	3.09	4.33	5.48
	50 (3,4)	2.80	5.62	6.81	7.58	2.10	3.21	4.51	5.70
	60 (4,1)	2.97	5.96	7.14	7.60	2.21	3.40	4.79	6.05
	70 (4,8)	3.10	6.22	7.39	7.60	2.29	3.55	5.00	6.31
25 to 90 (1,7 to 6,2)	35 (2,4)	1.17	1.86	2.65	3.61	1.10	1.51	2.07	2.69
	50 (3,4)	1.91	3.52	4.98	5.74	1.51	2.40	3.37	4.34
	75 (5,2)	2.59	5.03	7.06	7.60	1.88	3.19	4.53	5.80
	90 (6,2)	2.84	5.57	7.60	7.60	2.02	3.48	4.95	6.32
35 to 100 (2,4 to 6,9)	35 (2,4)	1.69	2.68	3.89	5.08	1.21	1.65	2.20	2.81
	50 (3,4)	2.16	3.75	5.47	6.40	1.53	2.38	3.32	4.20
	75 (5,2)	2.59	4.71	6.87	7.57	1.83	3.04	4.31	5.43
	100 (6,9)	2.83	5.25	7.60	7.60	1.99	3.40	4.86	6.10
75 to 125 (5,2 to 8,6)	75 (5,2)	5.49	6.87	7.45	7.60	3.38	5.05	6.01	6.05
	100 (6,9)	5.44	7.52	7.60	7.60	3.58	5.25	5.87	6.92
	125 (8,6)	6.42	7.60	7.60		3.64	4.91	6.63	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 5. C_V *Coefficients (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	C_V AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1-1/2 (DN 40)				NPS 1-1/2 (DN 40)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	1.95	2.54	2.81	3.31	Not Available			
	5 (0,34)	1.55	2.73	4.87	6.66				
	8 (0,55)	1.47	3.05	6.32	8.91				
5 to 25 (0,34 to 1,7)	5 (0,34)	1.37	1.64	2.54	2.94	1.37	1.51	1.81	2.06
	15 (1,0)	1.87	4.12	7.34	8.17	1.31	1.68	2.40	3.08
	25 (1,7)	2.16	5.32	9.55	10.50	1.35	1.81	2.71	3.57
15 to 70 (1,0 to 4,8)	15 (1,0)	1.87	2.94	4.14	5.83	1.37	1.62	2.16	2.79
	30 (2,1)	4.83	7.28	7.83	8.70	1.66	2.59	3.66	4.76
	45 (3,1)	6.25	9.33	9.54	10.01	1.81	3.05	4.36	5.66
	50 (3,4)	6.57	9.79	9.92	10.30	1.84	3.16	4.52	5.86
	60 (4,1)	7.09	10.52	10.52	10.76	1.89	3.32	4.77	6.18
	70 (4,8)	7.48	10.90	10.90	10.90	1.93	3.44	4.95	6.42
25 to 90 (1,7 to 6,2)	35 (2,4)	1.85	3.13	4.40	5.66	1.07	1.41	1.75	2.25
	50 (3,4)	3.61	6.48	7.44	8.17	1.46	2.29	3.11	4.05
	75 (5,2)	5.20	9.49	10.15	10.39	1.82	3.08	4.31	5.65
	90 (6,2)	5.79	10.59	10.90	10.90	1.96	3.37	4.75	6.22
35 to 100 (2,4 to 6,9)	35 (2,4)	2.93	3.99	5.59	8.06	1.47	2.00	2.59	3.28
	50 (3,4)	4.13	6.41	7.91	9.36	1.64	2.47	3.57	4.75
	75 (5,2)	5.22	8.60	9.97	10.51	1.80	2.90	4.45	6.04
	100 (6,9)	5.83	9.80	10.90	10.90	1.88	3.13	4.93	6.75
75 to 125 (5,2 to 8,6)	75 (5,2)	5.85	9.55	10.56	10.51	3.62	5.21	6.22	6.38
	100 (6,9)	6.05	10.50	10.74	10.41	3.89	5.08	6.70	7.87
	125 (8,6)	7.46	10.68	10.81		3.96	5.52	7.34	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 5. C_V *Coefficients (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	C_V AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 2 (DN 50)				NPS 2 (DN 50)			
		10%	20%	30%	40%	10%	20%	30%	40%
10 to 25 (0,69 to 1,7)	10 (0,69)	9.54	12.90	20.16	25.94	6.97	9.73	12.00	14.51
	15 (1,0)	13.77	25.30	30.19	30.19	9.10	11.66	14.20	17.37
	25 (1,7)	19.87	30.19	30.19	30.19	9.39	12.66	16.48	19.66
15 to 50 (1,0 to 3,4)	15 (1,0)	12.16	17.45	24.11	28.98	6.97	9.67	11.54	12.29
	25 (1,7)	14.20	24.03	29.03	30.08	8.32	11.20	14.90	17.73
	50 (3,4)	22.24	28.76	29.98	29.90	9.57	15.28	20.12	23.86
25 to 60 (1,7 to 4,1)	25 (1,7)	12.93	21.88	30.01	30.19	8.26	11.29	15.06	18.15
	50 (3,4)	18.16	29.95	30.19	30.19	9.12	14.28	19.11	22.97
	60 (4,1)	22.06	30.19	30.19		10.75	17.53	22.96	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 5. C_V *Coefficients (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	C_V AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 3 (DN 80)				NPS 3 (DN 80)			
		10%	20%	30%	40%	10%	20%	30%	40%
10 to 25 (0,69 to 1,7)	10 (0,69)	12.81	17.24	24.09	28.28	8.76	14.51	19.01	22.35
	15 (1,0)	13.42	21.30	28.37	35.03	11.58	17.34	21.63	25.08
	25 (1,7)	17.78	28.44	37.90	39.21	13.03	19.27	23.95	28.24
15 to 50 (1,0 to 3,4)	15 (1,0)	10.11	15.34	22.43	28.58	11.25	16.30	20.36	23.58
	25 (1,7)	12.15	23.16	33.49	39.21	10.85	18.05	22.17	26.93
	50 (3,4)	12.51	26.03	38.44	39.08	14.70	23.64	28.97	33.40
25 to 60 (1,7 to 4,1)	25 (1,7)	11.29	20.42	28.43	35.61	10.73	17.26	22.36	26.33
	50 (3,4)	13.31	25.82	37.56	39.11	13.57	21.54	27.47	31.76
	60 (4,1)	24.47	34.81	39.21		15.57	23.99	30.03	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 6. *Air Capacities*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN SCFH (Nm³/h) OF AIR AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1/2 (DN 15)				NPS 1/2 (DN 15)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	140 (3,8)	180 (4,8)	220 (5,9)	260 (7,0	Not Available			
	5 (0,34)	210 (5,6)	320 (8,6)	410 (11)	500 (13)				
	8 (0,55)	270 (7,2)	450 (12)	600 (16)	730 (20)				
5 to 25 (0,34 to 1,7)	5 (0,34)	160 (4,3)	230 (6,2)	300 (8,0)	400 (11)	120 (3,2)	140 (3,8)	160 (4,3)	190 (5,1)
	15 (1,0)	430 (12)	720 (19)	900 (24)	1050 (28)	240 (6,4)	340 (9,1)	430 (12)	550 (15)
	25 (1,7)	700 (19)	1200 (32)	1500 (40)	1700 (46)	350 (9,4)	540 (14)	700 (19)	900 (24)
10 to 50 (0,69 to 3,4)	10 (0,7)	240 (6,4)	400 (11)	560 (15)	730 (20)	170 (4,6)	210 (5,6)	260 (7,0)	310 (8,3)
	15 (1,0)	390 (10)	660 (18)	830 (22)	1000 (27)	220 (5,9)	300 (8,0)	400 (11)	500 (13)
	30 (2,1)	850 (23)	1450 (39)	1630 (44)	1820 (49)	390 (10)	570 (15)	830 (22)	1060 (28)
	45 (3,1)	1300 (35)	2240 (60)	2430 (65)	2630 (70)	550 (15)	840 (23)	1260 (34)	1610 (43)
	50 (3,4)	1450 (39)	2500 (67)	2700 (72)	2900 (78)	600 (16)	930 (25)	1400 (38)	1800 (48)
35 to 100 (2,4 to 6,9)	35 (2,4)	750 (20)	1260 (34)	1750 (47)	2150 (58)	420 (11)	640 (17)	860 (23)	1130 (30)
	50 (3,4)	1130 (30)	1920 (51)	2520 (68)	2970 (80)	610 (16)	980 (26)	1350 (36)	1790 (48)
	75 (5,2)	1770 (47)	3010 (81)	3810 (102)	4330 (116)	930 (25)	1540 (41)	2180 (58)	2900 (78)
	100 (6,9)	2400 (64)	4100 (110)	5100 (137)	5700 (153)	1250 (34)	2100 (56)	3000 (80)	4000 (107)
75 to 125 (5,2 to 8,6)	75 (5,2)	2650 (71)	3590 (96)	3960 (106)	4100 (110)	2060 (55)	3160 (85)	3650 (98)	4100 (110)
	100 (6,9)	3310 (89)	4550 (122)	4910 (132)	5580 (150)	2610 (70)	4190 (112)	4360 (117)	4950 (133)
	125 (8,6)	4390 (118)	5250 (141)	5770 (155)		2970 (80)	4870 (131)	5310 (142)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 6. *Air Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN SCFH (Nm³/h) OF AIR AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 3/4 (DN 20)				NPS 3/4 (DN 20)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	180 (4,8)	220 (5,9)	300 (8,0)	370 (9,9)	Not Available			
	5 (0,34)	370 (9,9)	640 (17)	990 (27)	1110 (30)				
	8 (0,55)	550 (15)	1060 (28)	1670 (45)	1840 (49)				
5 to 25 (0,34 to 1,7)	5 (0,34)	270 (7,2)	400 (11)	550 (15)	700 (19)	230 (6,2)	260 (7,0)	310 (8,3)	370 (9,9)
	15 (1,0)	740 (20)	1550 (42)	2080 (56)	2280 (61)	400 (11)	520 (14)	660 (18)	830 (22)
	25 (1,7)	1200 (32)	2700 (72)	3600 (96)	3850 (103)	560 (15)	770 (21)	1020 (27)	1300 (35)
10 to 50 (0,69 to 3,4)	10 (0,69)	360 (9,6)	550 (15)	800 (21)	1100 (29)	270 (7,2)	330 (8,8)	390 (10)	480 (13)
	15 (1,0)	570 (15)	990 (27)	1310 (35)	1700 (46)	360 (9,6)	480 (13)	600 (16)	750 (20)
	30 (2,1)	1180 (32)	2330 (62)	2850 (76)	3500 (94)	640 (17)	920 (25)	1240 (33)	1590 (43)
	45 (3,1)	1800 (48)	3660 (98)	4390 (118)	5300 (142)	910 (24)	1350 (36)	1890 (51)	2420 (65)
	50 (3,4)	2000 (54)	4100 (110)	4900 (131)	5900 (158)	1000 (27)	1500 (40)	2100 (56)	2700 (72)
35 to 100 (2,4 to 6,9)	35 (2,4)	1100 (29)	2350 (63)	3700 (99)	4800 (129)	680 (18)	940 (25)	1220 (33)	1540 (41)
	50 (3,4)	2120 (57)	4000 (107)	5430 (146)	6480 (174)	980 (26)	1420 (38)	1980 (53)	2590 (69)
	75 (5,2)	3810 (102)	6750 (181)	8320 (223)	9290 (249)	1490 (40)	2210 (59)	3240 (87)	4350 (117)
	100 (6,9)	5500 (147)	9500 (255)	11200 (300)	12100 (324)	2000 (54)	3000 (80)	4500 (121)	6100 (163)
75 to 125 (5,2 to 8,6)	75 (5,2)	3660 (98)	6670 (179)	7760 (208)	8680 (233)	2240 (60)	3760 (101)	4910 (132)	5710 (153)
	100 (6,9)	5570 (149)	9520 (255)	10540 (282)	11300 (303)	2860 (77)	4080 (109)	6100 (163)	7800 (209)
	125 (8,6)	7650 (205)	11690 (313)	12680 (340)		3510 (94)	5510 (148)	7940 (213)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 6. *Air Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN SCFH (Nm³/h) OF AIR AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1 (DN 25)				NPS 1 (DN 25)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	590 (16)	850 (23)	1070 (29)	1520 (41)	Not Available			
	5 (0,34)	930 (25)	1660 (44)	2400 (64)	3270 (88)				
	8 (0,55)	1380 (37)	2450 (66)	3640 (98)	4680 (125)				
5 to 25 (0,34 to 1,7)	5 (0,34)	700 (19)	950 (25)	1250 (34)	1650 (44)	520 (14)	660 (18)	840 (23)	1000 (27)
	15 (1,0)	1480 (40)	2750 (74)	4270 (114)	5430 (146)	960 (26)	1380 (37)	2020 (54)	2730 (73)
	25 (1,7)	2500 (67)	5000 (134)	7900 (212)	10000 (268)	1400 (38)	2100 (56)	3200 (86)	4450 (119)
15 to 70 (1,0 to 4,8)	15 (1,0)	1030 (28)	1990 (53)	3180 (85)	4230 (113)	900 (24)	1200 (32)	1600 (43)	2100 (56)
	30 (2,1)	2740 (73)	5760 (154)	7790 (209)	9490 (254)	2130 (57)	3330 (89)	4870 (131)	6520 (175)
	45 (3,1)	4450 (119)	9520 (255)	12410 (333)	14740 (395)	3350 (90)	5450 (146)	8150 (218)	10940 (293)
	50 (3,4)	5020 (135)	10780 (289)	13950 (374)	16490 (442)	3760 (101)	6160 (165)	9240 (248)	12410 (333)
	60 (4,1)	6160 (165)	13290 (356)	17020 (456)	20000 (536)	4580 (123)	7580 (203)	11420 (306)	15350 (411)
	70 (4,8)	7300 (196)	15800 (423)	20100 (539)	23500 (630)	5400 (145)	9000 (241)	13600 (364)	18300 (490)
25 to 90 (1,7 to 6,2)	35 (2,4)	1600 (43)	2700 (72)	4100 (110)	5900 (158)	1500 (40)	2200 (59)	3200 (86)	4400 (118)
	50 (3,4)	3430 (92)	6760 (181)	10210 (274)	12500 (335)	2700 (72)	4600 (123)	6910 (185)	9450 (253)
	75 (5,2)	6470 (173)	13540 (363)	20390 (546)	23500 (630)	4700 (126)	8600 (230)	13090 (351)	17850 (478)
	90 (6,2)	8300 (222)	17600 (472)	26500 (710)	30100 (807)	5900 (158)	11000 (295)	16800 (450)	22900 (614)
35 to 100 (2,4 to 6,9)	35 (2,4)	2300 (62)	3900 (105)	6000 (161)	8300 (222)	1650 (44)	2400 (64)	3400 (91)	4600 (123)
	50 (3,4)	3870 (104)	7200 (193)	11190 (300)	13930 (373)	2750 (74)	4570 (122)	6790 (182)	9150 (245)
	75 (5,2)	6480 (174)	12700 (340)	19850 (532)	23320 (625)	4570 (122)	8180 (219)	12450 (334)	16720 (448)
	100 (6,9)	9100 (244)	18200 (488)	28500 (764)	32700 (876)	6400 (172)	11800 (316)	18100 (485)	24300 (651)
75 to 125 (5,2 to 8,6)	75 (5,2)	14200 (381)	20740 (556)	23630 (633)	26090 (699)	9400 (252)	14480 (388)	18280 (490)	18990 (509)
	100 (6,9)	20550 (551)	28460 (763)	32210 (863)	34940 (936)	11530 (309)	18640 (500)	21420 (574)	26050 (698)
	125 (8,6)	24920 (668)	35760 (958)	40760 (1092)		15000 (402)	23880 (640)	28790 (772)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 6. *Air Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN SCFH (Nm³/h) OF AIR AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1-1/2 (DN 40) Reduced Port				NPS 1-1/2 (DN 40) Reduced Port			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	650 (17)	930 (25)	1180 (32)	1670 (45)	Not Available			
	5 (0,34)	1020 (27)	1830 (49)	2640 (71)	3600 (96)				
	8 (0,55)	1520 (41)	2700 (72)	4000 (107)	5150 (138)				
5 to 25 (0,34 to 1,7)	5 (0,34)	760 (20)	1040 (28)	1380 (37)	1820 (49)	570 (15)	730 (20)	920 (25)	1100 (29)
	15 (1,0)	1620 (43)	3030 (81)	4700 (126)	5970 (160)	1060 (28)	1520 (41)	2220 (59)	3000 (80)
	25 (1,7)	2750 (74)	5500 (147)	8690 (233)	11000 (295)	1540 (41)	2310 (62)	3520 (94)	4900 (131)
15 to 70 (1,0 to 4,8)	15 (1,0)	1130 (30)	2190 (59)	3500 (94)	4650 (125)	990 (27)	1320 (35)	1760 (47)	2310 (62)
	30 (2,1)	3010 (81)	6330 (170)	8570 (230)	10430 (280)	2340 (63)	3660 (98)	5360 (144)	7170 (192)
	45 (3,1)	4900 (131)	10480 (281)	13650 (366)	16220 (435)	3690 (99)	6000 (161)	8960 (240)	12030 (322)
	50 (3,4)	5520 (148)	11860 (318)	15340 (411)	18140 (486)	4140 (111)	6780 (182)	10160 (272)	13650 (366)
	60 (4,1)	6780 (182)	14620 (392)	18730 (502)	22000 (590)	5040 (135)	8340 (224)	12560 (337)	16890 (453)
	70 (4,8)	8030 (215)	17380 (466)	22110 (593)	25850 (693)	5940 (159)	9900 (265)	14960 (401)	20130 (539)
25 to 90 (1,7 to 6,2)	35 (2,4)	1760 (47)	2970 (80)	4510 (121)	6490 (174)	1650 (44)	2420 (65)	3520 (94)	4840 (130)
	50 (3,4)	3770 (101)	7440 (199)	11230 (301)	13750 (369)	2970 (80)	5060 (136)	7600 (204)	10390 (278)
	75 (5,2)	7120 (191)	14890 (399)	22430 (601)	25850 (693)	5170 (139)	9460 (254)	14400 (386)	19640 (526)
	90 (6,2)	9130 (245)	19360 (519)	29150 (781)	33110 (887)	6490 (174)	12100 (324)	18480 (495)	25190 (675)
35 to 100 (2,4 to 6,9)	35 (2,4)	2530 (68)	4290 (115)	6600 (177)	9130 (245)	1820 (49)	2640 (71)	3740 (100)	5060 (136)
	50 (3,4)	4260 (114)	7920 (212)	12310 (330)	15320 (411)	3020 (81)	5030 (135)	7470 (200)	10060 (270)
	75 (5,2)	7130 (191)	13970 (374)	21830 (585)	25650 (687)	5030 (135)	9000 (241)	13690 (367)	18400 (493)
	100 (6,9)	10010 (268)	20020 (537)	31350 (840)	35970 (934)	7040 (189)	12980 (348)	19910 (534)	26730 (716)
75 to 125 (5,2 to 8,6)	75 (5,2)	15080 (404)	20360 (546)	23670 (634)	26040 (698)	9290 (249)	14970 (401)	19070 (511)	20510 (550)
	100 (6,9)	19200 (515)	28690 (769)	31780 (852)	34820 (933)	12660 (339)	20040 (537)	24040 (644)	30340 (813)
	125 (8,6)	27700 (742)	36570 (980)	40860 (1095)		15690 (420)	22930 (615)	33290 (892)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 6. *Air Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN SCFH (Nm³/h) OF AIR AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1-1/2 (DN 40)				NPS 1-1/2 (DN 40)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	640 (17)	870 (23)	1000 (27)	1220 (33)	Not Available			
	5 (0,34)	790 (21)	1450 (39)	2690 (72)	3810 (102)				
	8 (0,55)	940 (25)	2030 (54)	4380 (117)	6400 (172)				
5 to 25 (0,34 to 1,7)	5 (0,34)	700 (19)	870 (23)	1400 (38)	1680 (45)	700 (19)	800 (21)	1000 (27)	1180 (32)
	15 (1,0)	1640 (44)	3790 (102)	7050 (189)	8190 (219)	1150 (31)	1540 (41)	2300 (62)	3090 (83)
	25 (1,7)	2570 (69)	6700 (180)	12700 (340)	14700 (394)	1600 (43)	2280 (61)	3600 (96)	5000 (134)
15 to 70 (1,0 to 4,8)	15 (1,0)	1640 (44)	2700 (72)	3980 (107)	5850 (157)	1200 (32)	1490 (40)	2070 (55)	2800 (75)
	30 (2,1)	6480 (174)	10400 (279)	11850 (318)	13910 (373)	2240 (60)	3710 (99)	5550 (149)	7620 (204)
	45 (3,1)	11330 (304)	18100 (485)	19720 (528)	21980 (589)	3270 (88)	5920 (159)	9020 (242)	12440 (333)
	50 (3,4)	12940 (347)	20660 (554)	22350 (599)	24670 (661)	3620 (97)	6660 (178)	10180 (273)	14040 (376)
	60 (4,1)	16170 (433)	25800 (691)	27590 (739)	30040 (805)	4310 (116)	8140 (218)	12500 (335)	17260 (463)
	70 (4,8)	19400 (520)	30930 (829)	32840 (880)	35420 (949)	5000 (134)	9620 (258)	14820 (397)	20470 (549)
25 to 90 (1,7 to 6,2)	35 (2,4)	2770 (74)	5000 (134)	7480 (200)	10170 (273)	1600 (43)	2250 (60)	2970 (80)	4050 (109)
	50 (3,4)	7100 (190)	13670 (366)	16760 (449)	19560 (524)	2880 (77)	4830 (129)	7000 (188)	9710 (260)
	75 (5,2)	14310 (384)	28130 (754)	32240 (864)	35210 (944)	5020 (135)	9120 (244)	13700 (367)	19140 (513)
	90 (6,2)	18640 (500)	36800 (986)	41520 (1113)	44600 (1195)	6300 (169)	11700 (314)	17730 (475)	24800 (665)
35 to 100 (2,4 to 6,9)	35 (2,4)	4390 (118)	6380 (171)	9500 (255)	14500 (389)	2200 (59)	3200 (86)	4400 (118)	5900 (158)
	50 (3,4)	8130 (218)	13540 (363)	17810 (477)	22420 (601)	3230 (87)	5220 (140)	8050 (216)	11370 (305)
	75 (5,2)	14370 (385)	25470 (683)	31660 (848)	35610 (954)	4940 (132)	8580 (230)	14140 (379)	20480 (549)
	100 (6,9)	20600 (552)	37400 (1002)	45510 (1220)	48810 (1308)	6650 (178)	11940 (320)	20230 (542)	29600 (793)
75 to 125 (5,2 to 8,6)	75 (5,2)	16090 (431)	28300 (758)	33550 (899)	35600 (954)	9940 (266)	15430 (414)	19740 (529)	21630 (580)
	100 (6,9)	21360 (572)	40070 (1074)	44020 (1180)	45650 (1223)	13730 (368)	19400 (520)	27470 (736)	34480 (924)
	125 (8,6)	32190 (863)	49830 (1335)	54270 (1454)		17060 (457)	25780 (691)	36860 (988)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 6. *Air Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN SCFH (Nm³/h) OF AIR AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 2 (DN 50)				NPS 2 (DN 50)			
		10%	20%	30%	40%	10%	20%	30%	40%
10 to 25 (0,69 to 1,7)	10 (0,69)	6370 (171)	8950 (240)	14520 (389)	19370 (519)	4700 (126)	6830 (183)	8740 (234)	10960 (294)
	15 (1,0)	11190 (300)	21560 (578)	29180 (782)	30980 (830)	7480 (200)	10050 (269)	12810 (343)	16360 (438)
	25 (1,7)	21920 (587)	38350 (1028)	41540 (1113)	43490 (1166)	10470 (281)	14970 (401)	20580 (552)	25870 (693)
15 to 50 (1,0 to 3,4)	15 (1,0)	9880 (265)	14880 (399)	21500 (576)	26990 (723)	5730 (154)	8340 (224)	10410 (279)	11570 (310)
	25 (1,7)	15660 (420)	28080 (753)	35840 (961)	39130 (1049)	9290 (249)	13240 (355)	18600 (498)	23320 (625)
	50 (3,4)	40670 (1090)	56380 (1511)	62730 (1681)	66500 (1782)	17700 (474)	30300 (812)	42580 (1141)	53670 (1438)
25 to 60 (1,7 to 4,1)	25 (1,7)	14260 (382)	25580 (686)	37060 (993)	41230 (1105)	9210 (247)	13350 (358)	18800 (504)	23880 (640)
	50 (3,4)	33210 (890)	58720 (1574)	64870 (1739)	68920 (1847)	16860 (452)	28320 (759)	40440 (1084)	51660 (1384)
	60 (4,1)	56330 (1509)	83590 (2240)	89580 (2401)		27760 (744)	48800 (1308)	68490 (1836)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 6. *Air Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN SCFH (Nm³/h) OF AIR AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 3 (DN 80)				NPS 3 (DN 80)			
		10%	20%	30%	40%	10%	20%	30%	40%
10 to 25 (0,69 to 1,7)	10 (0,69)	9050 (243)	12710 (341)	18470 (495)	22500 (603)	6080 (163)	10500 (281)	14290 (383)	17430 (467)
	15 (1,0)	11620 (311)	19350 (519)	26980 (723)	34790 (932)	9830 (263)	15440 (414)	20150 (540)	24400 (654)
	25 (1,7)	20900 (560)	35440 (950)	49900 (1337)	55940 (1499)	15010 (402)	23530 (631)	30890 (828)	38370 (1028)
15 to 50 (1,0 to 3,4)	15 (1,0)	8760 (235)	13940 (374)	21320 (571)	28380 (761)	9550 (256)	14510 (389)	18960 (508)	22940 (615)
	25 (1,7)	14280 (383)	28860 (773)	44090 (1182)	56210 (1506)	12500 (335)	22040 (591)	28600 (766)	36590 (981)
	50 (3,4)	24390 (654)	54400 (1458)	85750 (2298)	92660 (2483)	28080 (753)	48410 (1297)	63320 (1697)	77610 (2080)
25 to 60 (1,7 to 4,1)	25 (1,7)	13280 (356)	25440 (682)	37430 (1003)	49380 (1323)	12360 (331)	21070 (565)	28840 (773)	35770 (959)
	50 (3,4)	25950 (695)	53950 (1446)	83780 (2245)	92740 (2485)	25930 (695)	44100 (1182)	60040 (1609)	73790 (1978)
	60 (4,1)	66630 (1786)	102120 (2737)	123800 (3318)		41530 (1113)	68970 (1848)	92510 (2479)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 7. *Steam Capacities*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN POUNDS PER HOUR (kg/h) SATURATED STEAM AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1/2 (DN 15)				NPS 1/2 (DN 15)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	6.4 (2,9)	8.3 (3,8)	10 (4,5)	12 (5,4)	Not Available			
	5 (0,34)	9.2 (4,2)	14 (6,4)	18 (8,2)	22 (10)				
	8 (0,55)	12 (5,4)	20 (9,1)	27 (12)	32 (15)				
5 to 25 (0,34 to 1,7)	5 (0,34)	7.2 (3,3)	10 (4,5)	13 (5,9)	18 (8,2)	5.3 (2,4)	6.2 (2,8)	7.1 (3,2)	8.4 (3,8)
	15 (1,0)	19 (8,6)	32 (15)	40 (18)	46 (21)	10 (4,5)	15 (6,8)	19 (8,6)	24 (11)
	25 (1,7)	31 (14)	53 (24)	66 (30)	72 (33)	15 (6,8)	24 (11)	31 (14)	40 (18)
10 to 50 (0,69 to 3,4)	10 (0,69)	11 (5,0)	18 (8,2)	25 (11)	32 (15)	7.5 (3,4)	9.3 (4,2)	12 (5,4)	14 (6,4)
	15 (1,0)	17 (7,7)	29 (13)	37 (17)	44 (20)	10 (4,5)	13 (5,9)	18 (8,2)	22 (10)
	30 (2,1)	37 (17)	64 (29)	72 (33)	80 (36)	17 (7,7)	25 (11)	37 (17)	47 (21)
	45 (3,1)	57 (26)	99 (45)	110 (50)	110 (50)	24 (11)	37 (17)	56 (25)	71 (32)
	50 (3,4)	64 (29)	110 (50)	120 (54)	120 (54)	27 (12)	41 (19)	62 (28)	80 (36)
35 to 100 (2,4 to 6,9)	35 (2,4)	33 (15)	56 (25)	77 (35)	92 (42)	19 (8,6)	28 (13)	38 (17)	50 (23)
	50 (3,4)	50 (23)	85 (39)	110 (50)	120 (54)	27 (12)	43 (20)	60 (27)	79 (36)
	75 (5,2)	78 (35)	130 (59)	160 (73)	170 (77)	41 (19)	68 (31)	96 (44)	130 (59)
	100 (6,9)	110 (50)	180 (82)	210 (95)	220 (100)	55 (25)	93 (42)	130 (59)	180 (82)
75 to 125 (5,2 to 8,6)	75 (5,2)	120 (54)	150 (68)	160 (73)	170 (77)	91 (41)	120 (54)	130 (59)	140 (64)
	100 (6,9)	150 (68)	200 (91)	210 (95)	220 (100)	120 (54)	160 (73)	170 (77)	180 (82)
	125 (8,6)	190 (86)	230 (104)	260 (118)		130 (59)	190 (86)	210 (95)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 7. *Steam Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN POUNDS PER HOUR (kg/h) SATURATED STEAM AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 3/4 (DN 20)				NPS 3/4 (DN 20)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	8.3 (3,8)	9.9 (4,5)	14 (6,4)	17 (7,7)	Not Available			
	5 (0,34)	16 (7,3)	28 (13)	44 (20)	49 (22)				
	8 (0,55)	24 (11)	47 (21)	74 (34)	80 (36)				
5 to 25 (0,34 to 1,7)	5 (0,34)	12 (5,4)	18 (8,2)	24 (11)	31 (14)	10 (4,5)	12 (5,4)	14 (6,4)	16 (7,3)
	15 (1,0)	33 (15)	69 (31)	92 (42)	100 (45)	17 (7,7)	23 (10)	29 (13)	37 (17)
	25 (1,7)	53 (24)	120 (54)	150 (68)	150 (68)	25 (11)	34 (15)	45 (20)	58 (26)
10 to 50 (0,69 to 3,4)	10 (0,7)	16 (7,3)	24 (11)	35 (16)	49 (22)	12 (5,4)	15 (6,8)	17 (7,7)	21 (9,5)
	15 (1,0)	25 (11)	44 (20)	58 (26)	75 (34)	16 (7,3)	21 (9,5)	27 (12)	33 (15)
	30 (2,1)	52 (24)	100 (45)	130 (59)	150 (68)	28 (13)	40 (18)	55 (25)	70 (32)
	45 (3,1)	79 (36)	160 (73)	190 (86)	230 (104)	40 (18)	60 (27)	83 (38)	110 (50)
	50 (3,4)	89 (40)	180 (82)	220 (100)	260 (118)	44 (20)	66 (30)	93 (42)	120 (54)
35 to 100 (2,4 to 6,9)	35 (2,4)	49 (22)	100 (45)	160 (73)	200 (91)	30 (14)	42 (19)	54 (25)	68 (31)
	50 (3,4)	94 (43)	180 (82)	240 (109)	260 (118)	44 (20)	63 (29)	87 (39)	110 (50)
	75 (5,2)	170 (77)	300 (136)	350 (159)	370 (168)	66 (30)	98 (44)	140 (64)	190 (86)
	100 (6,9)	240 (109)	420 (191)	450 (204)	480 (218)	89 (40)	130 (59)	200 (91)	270 (123)
75 to 125 (5,2 to 8,6)	75 (5,2)	160 (73)	300 (136)	340 (154)	370 (168)	99 (45)	170 (77)	220 (100)	250 (114)
	100 (6,9)	250 (114)	420 (191)	450 (204)	480 (218)	130 (59)	180 (82)	270 (123)	350 (159)
	125 (8,6)	340 (154)	520 (236)	550 (250)		160 (73)	240 (109)	350 (159)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 7. *Steam Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN POUNDS PER HOUR (kg/h) SATURATED STEAM AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1 (DN 25)				NPS 1 (DN 25)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	27 (12)	39 (18)	49 (22)	70 (32)	Not Available			
	5 (0,34)	42 (19)	75 (34)	110 (50)	150 (68)				
	8 (0,55)	62 (28)	110 (50)	160 (73)	210 (95)				
5 to 25 (0,34 to 1,7)	5 (0,34)	32 (15)	43 (20)	57 (26)	75 (34)	24 (11)	30 (14)	38 (17)	45 (20)
	15 (1,0)	65 (30)	120 (54)	190 (86)	240 (109)	42 (19)	61 (28)	89 (40)	120 (54)
	25 (1,7)	110 (50)	220 (100)	350 (159)	440 (200)	62 (28)	93 (42)	140 (64)	200 (91)
15 to 70 (1,0 to 4,8)	15 (1,0)	46 (21)	88 (40)	140 (64)	190 (86)	40 (18)	53 (24)	71 (32)	93 (42)
	30 (2,1)	120 (54)	250 (114)	340 (154)	420 (191)	94 (43)	150 (68)	220 (100)	290 (132)
	45 (3,1)	200 (91)	420 (191)	550 (250)	650 (295)	150 (68)	240 (109)	360 (163)	480 (218)
	50 (3,4)	220 (100)	480 (218)	620 (281)	730 (331)	170 (77)	270 (123)	410 (186)	550 (250)
	60 (4,1)	270 (123)	590 (268)	750 (341)	880 (400)	200 (91)	340 (154)	510 (232)	680 (309)
	70 (4,8)	320 (145)	700 (318)	890 (404)	1010 (459)	240 (109)	400 (182)	600 (272)	810 (368)
25 to 90 (1,7 to 6,2)	35 (2,4)	71 (32)	120 (54)	180 (82)	260 (118)	66 (30)	97 (44)	140 (64)	190 (86)
	50 (3,4)	150 (68)	300 (136)	450 (204)	550 (250)	120 (54)	200 (91)	310 (141)	420 (191)
	75 (5,2)	290 (132)	600 (272)	900 (409)	1040 (472)	210 (95)	380 (173)	580 (263)	790 (359)
	90 (6,2)	370 (168)	780 (354)	1170 (531)	1260 (572)	260 (118)	490 (222)	740 (336)	1010 (459)
35 to 100 (2,4 to 6,9)	35 (2,4)	100 (45)	170 (77)	270 (123)	370 (168)	73 (33)	110 (50)	150 (68)	200 (91)
	50 (3,4)	170 (77)	320 (145)	500 (227)	620 (281)	120 (54)	200 (91)	300 (136)	400 (182)
	75 (5,2)	290 (132)	560 (254)	880 (400)	1030 (468)	200 (91)	360 (163)	550 (250)	740 (336)
	100 (6,9)	400 (182)	810 (368)	1260 (572)	1380 (627)	280 (127)	520 (236)	800 (363)	1080 (490)
75 to 125 (5,2 to 8,6)	75 (5,2)	630 (286)	920 (418)	1000 (454)	1070 (486)	420 (191)	640 (291)	810 (368)	840 (381)
	100 (6,9)	910 (413)	1200 (545)	1290 (586)	1380 (627)	510 (232)	830 (377)	950 (431)	1150 (522)
	125 (8,6)	1100 (499)	1470 (667)	1580 (717)		660 (300)	1060 (481)	1270 (577)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 7. *Steam Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN POUNDS PER HOUR (kg/h) SATURATED STEAM AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1-1/2 (DN 40) Reduced Port				NPS 1-1/2 (DN 40) Reduced Port			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	30 (14)	43 (20)	54 (24)	77 (35)	Not Available			
	5 (0,34)	46 (21)	83 (38)	120 (54)	160 (73)				
	8 (0,55)	68 (31)	120 (54)	180 (82)	230 (104)				
5 to 25 (0,34 to 1,7)	5 (0,34)	35 (16)	47 (21)	62 (28)	82 (37)	26 (12)	33 (15)	42 (19)	50 (23)
	15 (1,0)	72 (33)	130 (59)	210 (95)	260 (118)	47 (21)	67 (30)	98 (44)	130 (59)
	25 (1,7)	120 (54)	240 (109)	380 (173)	470 (213)	68 (31)	100 (45)	160 (73)	220 (100)
15 to 70 (1,0 to 4,8)	15 (1,0)	50 (23)	97 (44)	150 (68)	210 (95)	44 (20)	58 (26)	78 (35)	100 (45)
	30 (2,1)	130 (59)	280 (127)	380 (173)	460 (209)	100 (45)	160 (73)	240 (109)	320 (145)
	45 (3,1)	220 (100)	460 (209)	600 (272)	720 (327)	160 (73)	270 (123)	400 (182)	530 (241)
	50 (3,4)	240 (109)	520 (236)	680 (309)	800 (363)	180 (82)	300 (136)	450 (204)	600 (272)
	60 (4,1)	300 (136)	650 (295)	830 (377)	940 (427)	220 (100)	370 (168)	560 (254)	750 (341)
	70 (4,8)	360 (163)	770 (350)	980 (445)	1070 (486)	260 (118)	440 (200)	660 (300)	890 (404)
25 to 90 (1,7 to 6,2)	35 (2,4)	78 (35)	130 (59)	200 (91)	290 (132)	73 (33)	110 (50)	160 (73)	210 (95)
	50 (3,4)	170 (77)	330 (150)	500 (227)	610 (277)	130 (59)	220 (100)	340 (154)	460 (209)
	75 (5,2)	320 (145)	660 (300)	990 (449)	1140 (518)	230 (104)	420 (191)	640 (291)	870 (395)
	90 (6,2)	400 (182)	860 (390)	1250 (568)	1340 (608)	290 (132)	540 (245)	820 (372)	1110 (504)
35 to 100 (2,4 to 6,9)	35 (2,4)	110 (50)	190 (86)	290 (132)	400 (182)	80 (36)	120 (54)	170 (77)	220 (100)
	50 (3,4)	190 (86)	350 (159)	540 (245)	680 (309)	130 (59)	220 (100)	330 (150)	450 (204)
	75 (5,2)	320 (145)	620 (281)	970 (440)	1140 (518)	220 (100)	400 (182)	610 (277)	810 (368)
	100 (6,9)	440 (200)	890 (404)	1380 (627)	1470 (667)	310 (141)	570 (259)	880 (400)	1180 (536)
75 to 125 (5,2 to 8,6)	75 (5,2)	670 (304)	900 (409)	1050 (477)	1140 (518)	410 (186)	660 (300)	840 (381)	910 (413)
	100 (6,9)	850 (386)	1270 (577)	1380 (627)	1470 (667)	560 (254)	890 (404)	1060 (481)	1340 (608)
	125 (8,6)	1230 (558)	1570 (713)	1690 (767)		690 (313)	1010 (459)	1470 (667)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 7. *Steam Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN POUNDS PER HOUR (kg/h) SATURATED STEAM AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1-1/2 (DN 40)				NPS 1-1/2 (DN 40)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	30 (14)	40 (18)	46 (21)	56 (25)	Not Available			
	5 (0,34)	36 (16)	66 (30)	120 (54)	170 (77)				
	8 (0,55)	42 (19)	91 (41)	200 (91)	290 (132)				
5 to 25 (0,34 to 1,7)	5 (0,34)	32 (15)	40 (18)	64 (29)	76 (35)	32 (15)	36 (16)	45 (20)	53 (24)
	15 (1,0)	72 (33)	170 (77)	310 (141)	360 (163)	51 (23)	68 (31)	102 (46)	140 (64)
	25 (1,7)	110 (50)	300 (136)	560 (254)	650 (295)	71 (32)	100 (45)	160 (73)	220 (100)
15 to 70 (1,0 to 4,8)	15 (1,0)	73 (33)	120 (54)	180 (82)	260 (118)	53 (24)	66 (30)	92 (42)	120 (54)
	30 (2,1)	290 (132)	460 (209)	520 (236)	620 (281)	100 (45)	160 (73)	250 (114)	340 (154)
	45 (3,1)	500 (227)	800 (363)	870 (395)	970 (440)	140 (64)	260 (118)	400 (182)	550 (250)
	50 (3,4)	570 (259)	910 (413)	990 (449)	1090 (495)	160 (73)	290 (132)	450 (204)	620 (281)
	60 (4,1)	720 (327)	1140 (518)	1220 (554)	1330 (604)	190 (86)	360 (163)	550 (250)	760 (345)
	70 (4,8)	860 (390)	1350 (613)	1440 (654)	1540 (699)	220 (100)	430 (195)	660 (300)	910 (413)
25 to 90 (1,7 to 6,2)	35 (2,4)	123 (56)	220 (100)	330 (150)	450 (204)	71 (32)	100 (45)	130 (59)	180 (82)
	50 (3,4)	310 (141)	610 (277)	740 (336)	870 (395)	130 (59)	210 (95)	310 (141)	430 (195)
	75 (5,2)	630 (286)	1240 (563)	1430 (649)	1560 (708)	220 (100)	400 (182)	610 (277)	850 (386)
	90 (6,2)	820 (372)	1630 (740)	1800 (817)	1920 (872)	280 (127)	520 (236)	780 (354)	1100 (499)
35 to 100 (2,4 to 6,9)	35 (2,4)	190 (86)	280 (127)	420 (191)	640 (291)	97 (44)	140 (64)	190 (86)	260 (118)
	50 (3,4)	360 (163)	600 (272)	790 (359)	990 (449)	140 (64)	230 (104)	360 (163)	500 (227)
	75 (5,2)	640 (291)	1130 (513)	1400 (636)	1580 (717)	220 (100)	380 (173)	630 (286)	910 (413)
	100 (6,9)	910 (413)	1660 (754)	1980 (899)	2110 (958)	290 (132)	530 (241)	900 (409)	1310 (595)
75 to 125 (5,2 to 8,6)	75 (5,2)	710 (322)	1250 (568)	1480 (672)	1580 (717)	440 (200)	680 (309)	870 (395)	960 (436)
	100 (6,9)	950 (431)	1770 (804)	1950 (885)	2020 (917)	610 (277)	860 (390)	1220 (554)	1530 (695)
	125 (8,6)	1420 (645)	2210 (1003)	2400 (1090)		760 (345)	1140 (518)	1630 (740)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 7. *Steam Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN POUNDS PER HOUR (kg/h) SATURATED STEAM AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 2 (DN 50)				NPS 2 (DN 50)			
		10%	20%	30%	40%	10%	20%	30%	40%
10 to 25 (0,69 to 1,7)	10 (0,69)	280 (127)	400 (182)	640 (291)	860 (390)	210 (95)	300 (136)	390 (177)	490 (222)
	15 (1,0)	500 (227)	950 (431)	1190 (540)	1240 (563)	330 (150)	440 (200)	570 (259)	720 (327)
	25 (1,7)	970 (440)	1560 (708)	1650 (749)	1740 (790)	460 (209)	660 (300)	910 (413)	1140 (518)
15 to 50 (1,0 to 3,4)	15 (1,0)	440 (200)	660 (300)	950 (431)	1190 (540)	250 (114)	370 (168)	460 (209)	510 (232)
	25 (1,7)	690 (313)	1240 (563)	1590 (722)	1730 (785)	410 (186)	590 (268)	820 (372)	1030 (468)
	50 (3,4)	1800 (817)	2500 (1135)	2780 (1262)	2940 (1335)	780 (354)	1340 (608)	1880 (854)	2380 (1081)
25 to 60 (1,7 to 4,1)	25 (1,7)	630 (286)	1130 (513)	1640 (745)	1740 (790)	410 (186)	590 (268)	830 (377)	1060 (481)
	50 (3,4)	1470 (667)	2600 (1180)	2800 (1271)	2970 (1348)	750 (341)	1250 (568)	1790 (813)	2290 (1040)
	60 (4,1)	2490 (1130)	3680 (1671)	3940 (1789)		1230 (558)	2160 (981)	3030 (1376)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 7. *Steam Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN POUNDS PER HOUR (kg/h) SATURATED STEAM AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 3 (DN 80)				NPS 3 (DN 80)			
		10%	20%	30%	40%	10%	20%	30%	40%
10 to 25 (0,69 to 1,7)	10 (0,69)	400 (182)	560 (254)	820 (372)	1000 (454)	270 (123)	470 (213)	630 (286)	770 (350)
	15 (1,0)	510 (232)	860 (390)	1190 (540)	1540 (699)	440 (200)	680 (309)	890 (404)	1080 (490)
	25 (1,7)	930 (422)	1570 (713)	2210 (1003)	2410 (1094)	660 (300)	1040 (472)	1370 (622)	1700 (772)
15 to 50 (1,0 to 3,4)	15 (1,0)	390 (177)	620 (281)	940 (427)	1260 (572)	420 (191)	640 (291)	840 (381)	1020 (463)
	25 (1,7)	630 (286)	1280 (581)	1950 (885)	2410 (1094)	550 (250)	980 (445)	1270 (577)	1620 (735)
	50 (3,4)	1080 (490)	2410 (1094)	3800 (1725)	4100 (1861)	1240 (563)	2140 (972)	2800 (1271)	3430 (1557)
25 to 60 (1,7 to 4,1)	25 (1,7)	590 (268)	1130 (513)	1660 (754)	2190 (994)	550 (250)	930 (422)	1280 (581)	1580 (717)
	50 (3,4)	1150 (522)	2390 (1085)	3710 (1684)	4100 (1861)	1150 (522)	1950 (885)	2660 (1208)	3270 (1485)
	60 (4,1)	2950 (1339)	4520 (2052)	5460 (2479)		1840 (835)	3050 (1385)	4090 (1857)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 8. *Liquid Capacities*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN GPM (l/min) WATER AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1/2 (DN 15)				NPS 1/2 (DN 15)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	0.7 (2,6)	0.9 (3,4)	1.1 (4,2)	1.2 (4,5)	Not Available			
	5 (0,34)	1.1 (4,2)	1.6 (6,1)	2.1 (7,9)	2.6 (9,8)				
	8 (0,55)	1.5 (5,7)	2.5 (9,5)	3.3 (12)	4.1 (16)				
5 to 25 (0,34 to 1,7)	5 (0,34)	0.8 (3,0)	1.2 (4,5)	1.6 (6,1)	2.1 (7,9)	0.7 (2,6)	0.9 (3,4)	1.0 (3,8)	1.2 (4,5)
	15 (1,0)	2.4 (9,1)	3.9 (15)	4.8 (18)	5.5 (21)	1.6 (6,1)	2.3 (8,7)	2.8 (11)	3.5 (13)
	25 (1,7)	3.3 (12)	5.6 (21)	6.8 (26)	7.2 (27)	2.1 (7,9)	3.1 (12)	3.9 (15)	4.9 (19)
10 to 50 (0,69 to 3,4)	10 (0,69)	1.3 (4,9)	2.2 (8,3)	3.1 (12)	4.1 (16)	1.2 (4,5)	1.4 (5,3)	1.8 (6,8)	2.1 (7,9)
	15 (1,0)	2.2 (8,3)	3.6 (14)	4.4 (17)	5.2 (20)	1.5 (5,7)	2.0 (7,6)	2.6 (9,8)	3.2 (12)
	30 (2,1)	3.8 (14)	6.3 (24)	6.9 (26)	7.5 (28)	2.1 (7,9)	3.1 (12)	4.3 (16)	5.4 (20)
	45 (3,1)	5.0 (19)	8.4 (32)	8.7 (33)	9.0 (34)	2.6 (10)	3.9 (15)	5.6 (21)	7.0 (26)
	50 (3,4)	5.4 (20)	8.8 (33)	9.1 (34)	9.4 (36)	2.8 (11)	4.1 (16)	6.0 (23)	7.5 (28)
35 to 100 (2,4 to 6,9)	35 (2,4)	3.2 (12)	5.2 (20)	7.0 (26)	8.1 (31)	2.2 (8,3)	3.3 (12)	4.2 (16)	5.4 (20)
	50 (3,4)	4.2 (16)	6.9 (26)	8.8 (33)	9.4 (36)	2.8 (11)	4.3 (16)	5.8 (22)	7.5 (28)
	75 (5,2)	5.6 (21)	9.1 (34)	11 (42)	11 (42)	3.6 (14)	5.8 (22)	7.9 (30)	10 (38)
	100 (6,9)	6.7 (25)	11 (42)	12 (45)	13 (49)	4.3 (16)	6.9 (26)	9.5 (36)	12 (45)
75 to 125 (5,2 to 8,6)	75 (5,2)	8.3 (31)	10 (38)	11 (42)	11 (42)	8.0 (30)	10 (38)	11 (42)	11 (42)
	100 (6,9)	9.2 (35)	12 (45)	12 (45)	13 (49)	8.9 (34)	12 (45)	12 (45)	13 (49)
	125 (8,6)	11 (42)	13 (49)	13 (49)		9.2 (35)	13 (49)	14 (53)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 8. *Liquid Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN GPM (l/min) WATER AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 3/4 (DN 20)				NPS 3/4 (DN 20)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	0.9 (3,4)	1.0 (3,8)	1.4 (5,3)	1.8 (6,8)	Not Available			
	5 (0,34)	1.9 (7,2)	3.4 (13)	5.3 (20)	6.0 (23)				
	8 (0,55)	3.1 (12)	6.0 (23)	9.5 (36)	10 (38)				
5 to 25 (0,34 to 1,7)	5 (0,34)	1.4 (5,3)	2.1 (7,9)	3.0 (11)	3.8 (14)	1.2 (4,5)	1.4 (5,3)	1.6 (6,1)	2.0 (7,6)
	15 (1,0)	4.2 (16)	8.9 (34)	12 (45)	13 (49)	2.3 (8,7)	3.0 (11)	3.8 (14)	4.7 (18)
	25 (1,7)	6.3 (24)	14 (53)	16 (61)	17 (64)	2.9 (11)	3.9 (15)	5.1 (19)	6.3 (24)
10 to 50 (0,69 to 3,4)	10 (0,69)	2.1 (7,9)	3.2 (12)	4.6 (17)	6.4 (24)	1.5 (5,7)	1.9 (7,2)	2.2 (8,3)	2.7 (10)
	15 (1,0)	3.3 (12)	5.7 (22)	7.5 (28)	9.7 (37)	2.1 (7,9)	2.7 (10)	3.4 (13)	4.3 (16)
	30 (2,1)	5.8 (22)	11 (42)	13 (49)	16 (61)	3.1 (12)	4.4 (17)	5.8 (22)	7.2 (27)
	45 (3,1)	7.7 (29)	15 (57)	18 (68)	21 (79)	3.9 (15)	5.6 (21)	7.5 (28)	9.4 (36)
	50 (3,4)	8.2 (31)	16 (61)	19 (72)	22 (83)	4.1 (16)	5.9 (22)	8.0 (30)	10 (38)
35 to 100 (2,4 to 6,9)	35 (2,4)	5.2 (20)	11 (42)	16 (61)	19 (72)	3.2 (12)	4.3 (16)	5.4 (20)	6.6 (25)
	50 (3,4)	8.7 (33)	16 (61)	21 (79)	22 (83)	4.0 (15)	5.6 (21)	7.6 (29)	9.6 (36)
	75 (5,2)	13 (49)	23 (87)	26 (98)	26 (98)	5.2 (20)	7.4 (28)	10 (38)	14 (53)
	100 (6,9)	17 (64)	28 (106)	29 (110)	30 (114)	6.1 (23)	8.8 (33)	13 (49)	17 (64)
75 to 125 (5,2 to 8,6)	75 (5,2)	13 (49)	22 (83)	25 (95)	26 (98)	7.8 (30)	13 (49)	16 (61)	18 (68)
	100 (6,9)	17 (64)	28 (106)	29 (110)	30 (114)	8.7 (33)	12 (45)	17 (64)	21 (79)
	125 (8,6)	21 (79)	31 (117)	32 (121)		9.7 (37)	15 (57)	20 (76)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 8. *Liquid Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN GPM (l/min) WATER AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1 (DN 25)				NPS 1 (DN 25)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	2.7 (10)	3.8 (14)	4.9 (19)	6.9 (26)	Not Available			
	5 (0,34)	4.3 (16)	7.7 (29)	11 (42)	15 (57)				
	8 (0,55)	6.5 (25)	11 (42)	17 (64)	22 (83)				
5 to 25 (0,34 to 1,7)	5 (0,34)	3.2 (12)	4.4 (17)	5.8 (22)	7.7 (29)	2.4 (9,1)	3.1 (12)	3.9 (15)	4.7 (18)
	15 (1,0)	6.9 (26)	13 (49)	20 (76)	25 (95)	4.5 (17)	6.4 (24)	9.4 (36)	13 (49)
	25 (1,7)	11 (42)	21 (79)	32 (121)	40 (151)	6.1 (23)	8.8 (33)	13 (49)	18 (68)
15 to 70 (1,0 to 4,8)	15 (1,0)	4.8 (18)	9.3 (35)	15 (57)	20 (76)	4.2 (16)	5.6 (21)	7.4 (28)	9.7 (37)
	30 (2,1)	11 (42)	23 (87)	30 (114)	35 (132)	8.7 (33)	13 (49)	19 (72)	24 (91)
	45 (3,1)	16 (61)	32 (121)	41 (155)	47 (178)	12 (45)	19 (72)	27 (102)	35 (132)
	50 (3,4)	17 (64)	35 (132)	44 (167)	50 (189)	13 (49)	20 (76)	29 (110)	38 (144)
	60 (4,1)	19 (72)	40 (151)	50 (189)	56 (212)	14 (53)	23 (87)	33 (125)	43 (163)
	70 (4,8)	21 (79)	45 (170)	55 (208)	60 (227)	16 (61)	25 (95)	37 (140)	48 (182)
25 to 90 (1,7 to 6,2)	35 (2,4)	6.2 (23)	10 (38)	15 (57)	21 (79)	5.8 (22)	8.2 (31)	12 (45)	16 (61)
	50 (3,4)	12 (45)	22 (83)	32 (121)	38 (144)	9.1 (34)	15 (57)	22 (83)	29 (110)
	75 (5,2)	18 (68)	37 (140)	54 (204)	60 (227)	13 (49)	24 (91)	35 (132)	46 (174)
	90 (6,2)	22 (83)	45 (170)	65 (246)	67 (254)	16 (61)	28 (106)	41 (155)	54 (204)
35 to 100 (2,4 to 6,9)	35 (2,4)	8.9 (34)	15 (57)	22 (83)	29 (110)	6.4 (24)	9.0 (34)	12 (45)	16 (61)
	50 (3,4)	13 (49)	23 (87)	35 (132)	43 (163)	9.2 (35)	15 (57)	21 (79)	28 (106)
	75 (5,2)	18 (68)	35 (132)	53 (201)	60 (227)	13 (49)	22 (83)	33 (125)	43 (163)
	100 (6,9)	23 (87)	44 (167)	67 (254)	71 (269)	16 (61)	29 (110)	42 (159)	55 (208)
75 to 125 (5,2 to 8,6)	75 (5,2)	40 (151)	57 (216)	60 (227)	62 (235)	27 (102)	40 (151)	49 (185)	49 (185)
	100 (6,9)	52 (197)	66 (250)	68 (257)	71 (269)	29 (110)	45 (170)	50 (189)	59 (223)
	125 (8,6)	57 (216)	73 (276)	76 (288)		34 (129)	52 (197)	61 (231)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 8. *Liquid Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN GPM (l/min) WATER AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1-1/2 (DN 40) Reduced Port				NPS 1-1/2 (DN 40) Reduced Port			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	2.9 (11)	4.2 (16)	5.3 (20)	7.6 (29)	Not Available			
	5 (0,34)	4.7 (18)	8.4 (32)	12 (45)	17 (64)				
	8 (0,55)	7.1 (27)	13 (49)	19 (72)	24 (91)				
5 to 25 (0,34 to 1,7)	5 (0,34)	3.5 (13)	4.8 (18)	6.4 (24)	8.4 (32)	2.6 (9,8)	3.3 (12)	4.3 (16)	5.1 (19)
	15 (1,0)	7.5 (28)	14 (53)	22 (83)	27 (102)	4.9 (19)	7.0 (26)	10 (38)	14 (53)
	25 (1,7)	11 (42)	22 (83)	34 (129)	41 (155)	6.4 (24)	9.4 (36)	14 (53)	19 (72)
15 to 70 (1,0 to 4,8)	15 (1,0)	5.3 (20)	10 (38)	16 (61)	21 (79)	4.6 (17)	6.1 (23)	8.1 (31)	11 (42)
	30 (2,1)	12 (45)	24 (91)	32 (121)	38 (144)	9.2 (35)	14 (53)	20 (76)	26 (98)
	45 (3,1)	17 (64)	34 (129)	43 (163)	50 (189)	12 (45)	20 (76)	28 (106)	37 (140)
	50 (3,4)	18 (68)	37 (140)	47 (178)	53 (201)	13 (49)	21 (79)	31 (117)	40 (151)
	60 (4,1)	20 (76)	43 (163)	53 (201)	58 (220)	15 (57)	24 (91)	35 (132)	46 (174)
	70 (4,8)	23 (87)	47 (178)	58 (220)	62 (235)	17 (64)	27 (102)	39 (148)	51 (193)
25 to 90 (1,7 to 6,2)	35 (2,4)	6.5 (25)	11 (42)	16 (61)	22 (83)	6.1 (23)	8.7 (33)	12 (45)	16 (61)
	50 (3,4)	12 (45)	23 (87)	34 (129)	41 (155)	9.7 (37)	16 (61)	23 (87)	31 (117)
	75 (5,2)	20 (76)	39 (148)	57 (216)	64 (242)	14 (53)	25 (95)	37 (140)	49 (185)
	90 (6,2)	23 (87)	47 (178)	67 (254)	69 (261)	17 (64)	30 (114)	44 (167)	58 (220)
35 to 100 (2,4 to 6,9)	35 (2,4)	9.4 (36)	15 (57)	23 (87)	31 (117)	6.8 (26)	9.5 (36)	13 (49)	17 (64)
	50 (3,4)	14 (53)	25 (95)	37 (140)	45 (170)	9.8 (37)	16 (61)	23 (87)	30 (114)
	75 (5,2)	20 (76)	37 (140)	56 (212)	64 (242)	14 (53)	24 (91)	35 (132)	46 (174)
	100 (6,9)	24 (91)	47 (178)	70 (265)	73 (276)	17 (64)	30 (114)	45 (170)	58 (220)
75 to 125 (5,2 to 8,6)	75 (5,2)	42 (159)	54 (204)	61 (231)	64 (242)	26 (98)	40 (151)	49 (185)	51 (193)
	100 (6,9)	47 (178)	67 (254)	70 (265)	73 (276)	31 (117)	47 (178)	54 (204)	66 (250)
	125 (8,6)	61 (231)	75 (284)	78 (295)		34 (129)	48 (182)	68 (257)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 8. *Liquid Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN GPM (l/min) WATER AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 1-1/2 (DN 40)				NPS 1-1/2 (DN 40)			
		10%	20%	30%	40%	10%	20%	30%	40%
2 to 8 (0,14 to 0,55)	2 (0,14)	2.9 (11)	3.9 (15)	4.5 (17)	5.5 (21)	Not Available			
	5 (0,34)	3.6 (14)	6.7 (25)	12 (45)	18 (68)				
	8 (0,55)	4.4 (17)	9.4 (36)	20 (76)	30 (114)				
5 to 25 (0,34 to 1,7)	5 (0,34)	3.2 (12)	4.0 (15)	6.5 (25)	7.8 (30)	3.2 (12)	3.7 (14)	4.6 (17)	5.5 (21)
	15 (1,0)	7.6 (29)	18 (68)	32 (121)	37 (140)	5.3 (20)	7.1 (27)	11 (42)	14 (53)
	25 (1,7)	11 (42)	29 (110)	53 (201)	60 (227)	7.1 (27)	9.9 (37)	15 (57)	21 (79)
15 to 70 (1,0 to 4,8)	15 (1,0)	7.6 (29)	12 (45)	18 (68)	27 (102)	5.6 (21)	6.9 (26)	9.5 (36)	13 (49)
	30 (2,1)	27 (102)	42 (159)	47 (178)	53 (201)	9.4 (36)	15 (57)	22 (83)	29 (110)
	45 (3,1)	41 (155)	63 (238)	67 (254)	72 (273)	12 (45)	21 (79)	30 (114)	41 (155)
	50 (3,4)	45 (170)	69 (261)	72 (273)	77 (291)	13 (49)	22 (83)	33 (125)	44 (167)
	60 (4,1)	52 (197)	80 (303)	83 (314)	87 (329)	14 (53)	25 (95)	38 (144)	50 (189)
	70 (4,8)	59 (223)	89 (337)	92 (348)	95 (360)	15 (57)	28 (106)	42 (159)	56 (212)
25 to 90 (1,7 to 6,2)	35 (2,4)	11 (42)	19 (72)	28 (106)	37 (140)	6.3 (24)	8.6 (33)	11 (42)	15 (57)
	50 (3,4)	25 (95)	46 (174)	54 (204)	61 (231)	10 (38)	16 (61)	23 (87)	30 (114)
	75 (5,2)	42 (159)	79 (299)	88 (333)	93 (352)	15 (57)	26 (98)	37 (140)	51 (193)
	90 (6,2)	50 (189)	96 (363)	100 (379)	110 (416)	17 (64)	31 (117)	45 (170)	60 (227)
35 to 100 (2,4 to 6,9)	35 (2,4)	17 (64)	24 (91)	35 (132)	53 (201)	8.7 (33)	12 (45)	16 (61)	21 (79)
	50 (3,4)	28 (106)	45 (170)	58 (220)	70 (265)	11 (42)	17 (64)	26 (98)	36 (136)
	75 (5,2)	42 (159)	72 (273)	86 (326)	94 (356)	14 (53)	24 (91)	39 (148)	54 (204)
	100 (6,9)	53 (201)	93 (352)	110 (416)	110 (416)	17 (64)	30 (114)	49 (185)	69 (261)
75 to 125 (5,2 to 8,6)	75 (5,2)	47 (178)	80 (303)	91 (344)	94 (356)	29 (110)	44 (167)	54 (204)	57 (216)
	100 (6,9)	55 (208)	100 (379)	110 (416)	110 (416)	36 (136)	48 (182)	66 (250)	80 (303)
	125 (8,6)	75 (284)	110 (416)	120 (454)		40 (151)	58 (220)	80 (303)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 8. *Liquid Capacities (continued)*

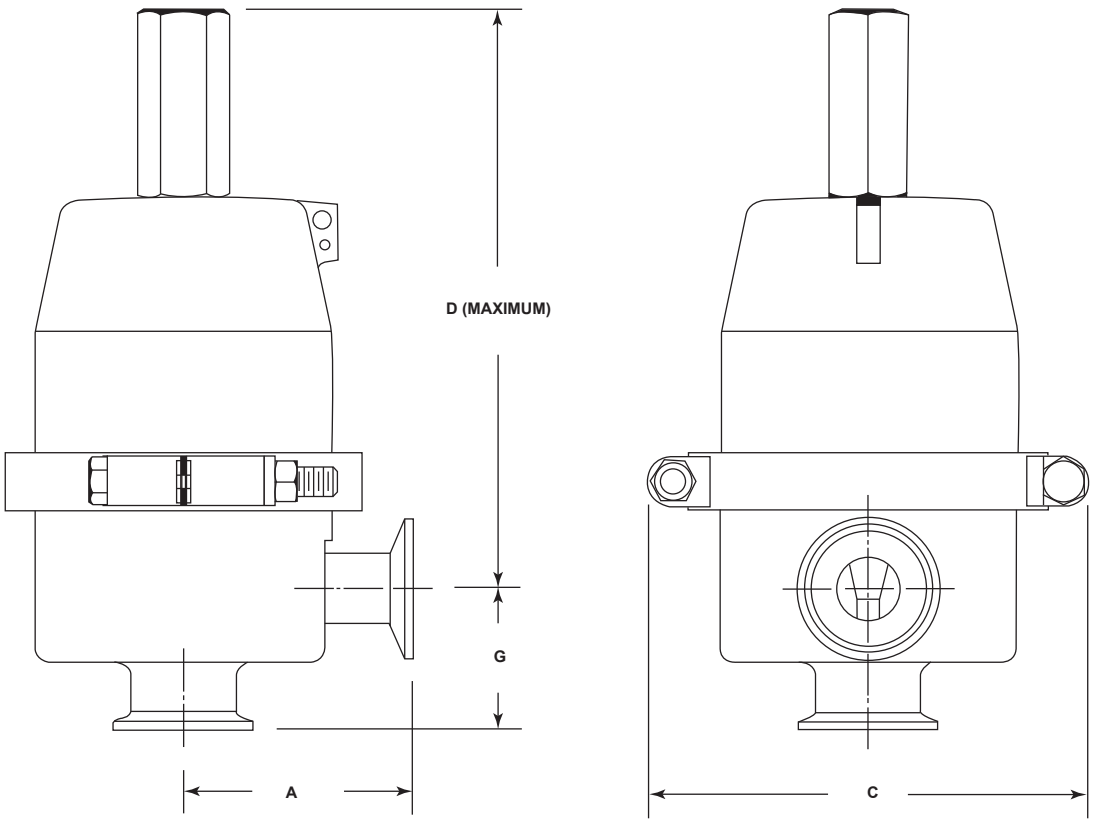
SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN GPM (l/min) WATER AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 2 (DN 50)				NPS 2 (DN 50)			
		10%	20%	30%	40%	10%	20%	30%	40%
10 to 25 (0,69 to 1,7)	10 (0,69)	32 (121)	45 (170)	72 (273)	95 (360)	23 (87)	33 (125)	42 (159)	52 (197)
	15 (1,0)	53 (201)	99 (375)	120 (454)	120 (454)	34 (129)	44 (167)	55 (208)	69 (261)
	25 (1,7)	88 (333)	140 (530)	140 (530)	150 (568)	41 (155)	56 (212)	75 (284)	92 (348)
15 to 50 (1,0 to 3,4)	15 (1,0)	46 (174)	68 (257)	96 (363)	120 (454)	26 (98)	37 (140)	45 (170)	49 (185)
	25 (1,7)	63 (238)	110 (416)	140 (530)	150 (568)	36 (136)	50 (189)	68 (257)	83 (314)
	50 (3,4)	130 (492)	170 (643)	180 (681)	190 (719)	53 (201)	88 (333)	120 (454)	150 (568)
25 to 60 (1,7 to 4,1)	25 (1,7)	58 (220)	100 (379)	140 (530)	150 (568)	36 (136)	50 (189)	69 (261)	85 (322)
	50 (3,4)	100 (379)	180 (681)	190 (719)	190 (719)	51 (193)	82 (310)	110 (416)	140 (530)
	60 (4,1)	150 (568)	210 (795)	220 (833)		71 (269)	120 (454)	160 (606)	

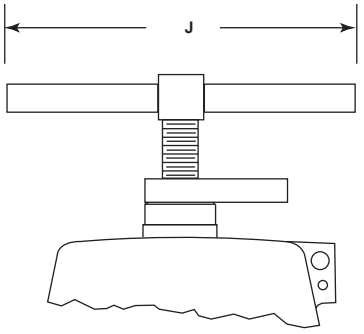
Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.

Table 8. *Liquid Capacities (continued)*

SPRING RANGE, PSIG (bar)	SET PRESSURE, PSIG (bar)	CAPACITIES IN GPM (l/min) WATER AT % BUILD-UP							
		Elastomer Diaphragm				Metal Diaphragm			
		NPS 3 (DN 80)				NPS 3 (DN 80)			
		10%	20%	30%	40%	10%	20%	30%	40%
10 to 25 (0,69 to 1,7)	10 (0,69)	42 (159)	60 (227)	85 (322)	100 (379)	28 (106)	48 (182)	64 (242)	77 (291)
	15 (1,0)	50 (189)	82 (310)	110 (416)	140 (530)	42 (159)	64 (242)	81 (307)	97 (367)
	25 (1,7)	78 (295)	130 (492)	180 (681)	190 (719)	55 (208)	83 (314)	110 (416)	130 (492)
15 to 50 (1,0 to 3,4)	15 (1,0)	38 (144)	59 (223)	88 (333)	120 (454)	40 (151)	60 (227)	77 (291)	91 (344)
	25 (1,7)	53 (201)	100 (379)	160 (606)	190 (719)	45 (170)	78 (295)	98 (371)	120 (454)
	50 (3,4)	70 (265)	150 (568)	230 (871)	240 (908)	79 (299)	130 (492)	170 (643)	200 (757)
25 to 60 (1,7 to 4,1)	25 (1,7)	49 (185)	90 (341)	130 (492)	170 (643)	45 (170)	74 (280)	99 (375)	120 (454)
	50 (3,4)	75 (284)	150 (568)	230 (871)	240 (908)	73 (276)	120 (454)	160 (606)	190 (719)
	60 (4,1)	160 (606)	240 (908)	280 (1060)		99 (375)	160 (606)	210 (795)	

Shaded areas indicate conditions where maximum differential pressure for the spring range is exceeded.





OPTIONAL T-HANDLE

SIZE, NPS (DN)	DIMENSIONS, INCHES (mm)				
	A	C	D	G	J
1/2 (15)	3.00 (76)	5.11 (130)	7.17 (182)	1.50 (38)	4.00 (102)
3/4 (20)	3.00 (76)	5.11 (130)	7.17 (182)	1.50 (38)	4.00 (102)
1 (25)	3.25 (83)	6.20 (158)	8.20 (208)	2.00 (51)	5.00 (127)
1-1/2 (40)	3.25 (83)	6.20 (158)	8.20 (208)	2.50 (64)	5.00 (127)
1-1/2 x 1 (40 x 25)	3.25 (83)	6.20 (158)	8.20 (208)	2.50 (64)	5.00 (127)
2 (50)	5.50 (140)	10.6 (269)	13.76 (350)	4.00 (102)	5.00 (127)
3 (80)	5.50 (140)	10.6 (269)	13.76 (350)	4.00 (102)	5.00 (127)

Figure 3. *Dimensions*

Product Ordering Guide

Body Size (Select One)
- ☐ NPS 1/2 (DN 15)**
- ☐ NPS 3/4 (DN 20)**
- ☐ NPS 1 (DN 25)**
- ☐ NPS 1-1/2 x 1 (DN 40 x 25)**
- ☐ NPS 1-1/2 (DN 40) full port**
- ☐ NPS 2 (DN 50)**
- ☐ NPS 3 (DN 80)**

Internal Finish (Select One)
- ☐ 20 µin (0,5 µm) Ra**
- ☐ Other, please specify _____

Seat (Select One)
- ☐ Metal**
- ☐ Soft, Virgin PTFE**
- ☐ Soft Polyetheretherketone (PEEK)**

Diaphragm and O-ring Material (Select One)
- ☐ Ethylenepropylene (EPDM) (FDA)**
- ☐ PTFE coated Fluorocarbon (FKM) (NPS 1/2 through 1-1/2 (DN 15 through 40) only)**
- ☐ 316L Stainless Steel with PTFE/Fluorocarbon (FKM) O-ring**

Spring Range (Select One)

NPS 1/2 and 3/4 (DN 15 and 20)
- ☐ 2 to 8 psig (0,14 to 0,55 bar) (Not available with metal diaphragm)**
- ☐ 5 to 25 psig (0,34 to 1,7 bar)**
- ☐ 10 to 50 psig (0,69 to 3,4 bar)**
- ☐ 35 to 100 psig (2,4 to 6,9 bar)**
- ☐ 75 to 125 psig (5,2 to 8,6 bar)**

NPS 1, 1-1/2, and 1-1/2 x 1 (DN 25, 40, and 40 x 25)
- ☐ 2 to 8 psig (0,14 to 0,55 bar) (Not available with metal diaphragm)**
- ☐ 5 to 25 psig (0,34 to 1,7 bar)**
- ☐ 15 to 70 psig (1,0 to 4,8 bar)**
- ☐ 25 to 90 psig (1,7 to 6,2 bar)**
- ☐ 35 to 100 psig (2,4 to 6,9 bar)**
- ☐ 75 to 125 psig (5,2 to 8,6 bar)**

NPS 2 and 3 (DN 50 and 80)
- ☐ 10 to 25 psig (0,69 to 1,7 bar)**
- ☐ 15 to 50 psig (1,0 to 3,4 bar)**
- ☐ 25 to 60 psig (1,7 to 4,1 bar)**

T-handle Adjusting Screw (Optional)
- ☐ Yes**
- ☐ No

Pressure Loaded Spring Case (Optional)
- ☐ Yes*
- ☐ No

Vacuum Protection (Optional – elastomer diaphragm only**)**
- ☐ Yes*
- ☐ No

Certificates (Optional)
- ☐ 3A® (Ethylenepropylene (EPDM) and 316L Diaphragms only)**
- ☐ FDA Elastomers/Plastics**
- ☐ Materials**
- ☐ Functional Test**
- ☐ USP Class VI Elastomers/Plastics**

Parts Kit (Optional)
- ☐ Yes, please send a parts kit to match this order.**
- ☐ No

Fisher Regulators Quick Order Guide	
* * *	Standard – Readily Available for Shipment
* *	Non-Standard – Allow Additional Time for Shipment
*	Special Order – Constructed from Non-Stocked Parts. Consult your local Sales Office for Availability.
Availability of the product being ordered is determined by the component with the longest shipping time for the requested construction.	

Specification Worksheet

Application:

Specific Use _____

Line Size _____

Fluid Type and Specific Gravity _____

Fluid Temperature _____

Upstream Regulator Specifications:

Brand of Upstream Regulator? _____

Orifice Size of the Upstream Regulator? _____

_____

Wide-Open Coefficient of the Upstream Regulator?

_____

Maximum Inlet Pressure (P_{1max}) _____

Downstream Pressure Setting(s)(P_2) _____

Maximum Flow (Q_{max}) _____

Relief Valve Specifications:

Relief Valve Setpoint _____

Accuracy Requirements? _____

Need for Extremely Fast Response? _____

Other Requirements: _____

_____

Bulletin 71.4:SR8

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